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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--------------------------------|-------------|----------------------|---------------------|------------------|
| 10/508,859 | 12/21/2004 | Yoshiyuki Oguchi | Q83325 | 8700 |
| 23373 7590 05/29/2008 | | | | |
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| EXAMINER | | | | |
| BRIGGS, NATHANIEL R | | | | |
| ART UNIT | | PAPER NUMBER | | |
| 2871 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/508,859

Applicant(s)

OGUCHI ET AL.

Examiner

NATHANAE L. R. BRIGGS

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 1-10 and 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-13 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 11-13 and 20 in the reply filed on 26 March 2008 is acknowledged.

Response to Arguments

2. Applicant's arguments with respect to claims 11-13 and 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

3. Claims 12 and 20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim recites identical limitations of claims 11 and 13, respectively, as per the amendments filed 04 December 2007.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 11-13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Morii (US 2008/0036944) in view of Okabe et al. (US 6,280,799).**

6. Regarding claims 11 and 12, Morii discloses a dispersion of spacer particles (see figure 5, for instance), which comprises spacer particles (30b) in which a vinyl-based thermoplastic resin ([0043]), formed by free radical polymerizing a mixture of vinyl-based monomers ([0043]) comprising a vinyl-based monomer having a hydrophilic functional group (hydroxyl and carboxyl; [0044]) in an amount of 0 to 100% by weight and a vinyl-based monomer having an alkyl group ([0019]) having 3 to 22 carbon atoms in an amount of 0 to 100% by weight is combined with the surface of an inorganic fine particle and/or organic fine particle by graft polymerization ([0072]) said spacer particles being dispersed in the form of individual particles (see figure 5) in a medium. However, Morii does not expressly disclose a hydrophilic functional group in an amount of 30 to 80% by weight or an alkyl group having 3 to 22 carbon atoms in an amount of 20 to 60% by weight; or wherein the dispersion contains a medium comprising water and/or a hydrophilic organic solvent and having the surface tension of 25 to 50 mN/m at 20°C. However, because the claimed ranges overlap with the ranges disclosed by Morii, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the claimed ranges. MPEP § 2144.05 cites, "In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists."
7. Furthermore, regarding claims 11 and 12, Okabe discloses a dispersion of spacer particles (see figure 5, for instance) wherein the dispersion contains a medium comprising water and/or a hydrophilic organic solvent and having the surface tension of 25 to 50 mN/m at 20°C (column 8, line 14).

8. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use water as a dispersion medium as disclosed by Okabe in the dispersion of Morii. The motivation for doing so would have been to create dispersion patterns in very small widths and patterns, as taught by Okabe (column 13, lines 49-55). Claims 11 and 12 are therefore unpatentable.

9. Regarding claims 13 and 20, Morii in view of Okabe discloses the dispersion of spacer particles according to claims 11 and 12 (see Morii figure 5; Okabe figure 5, for instance), and Morii further discloses wherein the hydrophilic functional group is at least one species selected from the group consisting of hydroxyl group, carboxyl group, sulfonyl group, phosphoryl group, amino group, amide group, ether group, thiol group and thioether group ([0044]). Claims 13 and 20 are therefore unpatentable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NATHANAEL R. BRIGGS whose telephone number is (571)272-8992. The examiner can normally be reached on 9 AM - 5:30 PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on (571) 272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2871

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nathanael Briggs – 5/23/2008

/Andrew Schechter/
Primary Examiner, Art Unit 2871